Claims

1. A telecommunication network section comprising two nodes (1, 2) and a group of at least two bi-directional data lines (3, 4) extending between the two nodes (1, 2), wherein
   - at least one of the data lines is redundant,
   - each node (1, 2) comprises a control unit (10), at least one switching matrix (8, 9) and a plurality of interface circuits (6-1, ..., 7-4),
   - each data line (3, 4) is connected to an interface circuit (6-1, 6-2, 7-1, 7-2) of each of the two nodes (1, 2),
   - each interface circuit (6-1, ..., 7-4) is adapted to transmit a predetermined number of channels between the data line (3, 4) and the switching matrix (8, 9),
   - the control unit (10) of a node (1, 2) is adapted to accede to a configuration record which at any time specifies existing connections between channels of the interface circuits (6-1, ..., 7-4) via the switching matrix (8, 9), and
   - the control unit is adapted to detect whether an external condition is fulfilled or not, and, in case of non-fulfilment of the condition, to allow changes to the connections recorded in the configuration record, and in case of fulfilment of the condition, to block changes to the connections recorded in the configuration record, while at the same time allowing transmission of information via the switching units of the node to continue.

2. The section of claim 1, characterized in that each node (1, 2) is adapted to transmit the working

specimen and at least one redundant specimen of each information unit to be transmitted to the second node (2, 1) via different data lines (3; 4) of the group and, among plural specimens of an information unit received from the second node (2; 1) via the data lines of the group (3, 4), to take account only of the working specimen.

3. The section of claim 2, characterized in that the number of data lines (3, 4) in the group is two.

4. The section of claim 1, characterized in that each node (1, 2) is adapted, in case of a failure of the transmission of the working specimen to the second node by the predetermined data line (3; 4), to determine another data line of the group (4; 3).

5. The section according to one of the preceding claims, characterized in that the external condition is adapted to be fulfilled or not fulfilled individually for each interface circuit (6-1, ..., 7-4) and that the control unit (10) is adapted to block changes, in case of the condition being fulfilled for one of the interface circuits (6-1), only for connections of the interface circuit (6-1) for which the condition is fulfilled.

6. The section according to one of the preceding claims, characterized in that the control unit (10) specifies the number of channels supported by each interface circuit (6-1, ..., 7-4) of the node.

7. The section of claim 6, characterized in that the external condition is a discrepancy between the number of channels of an interface circuit recorded in the configuration record and its actual number of

channels.

8. The section of claim 7, characterized in that the node (1, 2) is adapted to modify the recorded number of channels according to an external instruction.

9. The section according to one of the preceding claims, characterized in that the node (1, 2) is adapted, after detection of fulfilment of the condition, to check upon receipt of an external instruction whether the condition continues to be fulfilled, and, in case of non-fulfilment of the condition, to remove the blocking.

10. The section according to one of the preceding claims, characterized in that it is part of an SDH telecommunication network.

11. The section of claim 10, characterized in that the number of channels of an interface circuit (6-1, ..., 7-4) before upgrading is 16 and after upgrading is 64.

12. A method for upgrading a section of a telecommunication network according to one of the preceding claims, wherein the steps:

a) removing working data traffic from a data line (4) of the group;

b) fulfilling the external condition;

c) replacing the interface circuits (6-1, 7-1; 13, 14, 23, 24) connected to the line free from working data traffic;

are repeated until all interface circuits (6-1, 6-2, 7-1, 7-2; 13, 14, 23, 24) connected to data lines (3, 4) of the group are exchanged, and the external condition is unfulfilled again.

13. The method of claim 12, wherein the external condition is a discrepancy between the number of channels of an interface circuit recorded in the configuration record and its actual number of channels.

14. The method of claim 13, characterized in that the external condition is fulfilled by entering a number of channels that is different from the number of channels of an existing interface circuit into the configuration record and is unfulfilled by replacing the interface circuit (6-1, 6-2; 13, 14, 23, 24) by a new one (6-1', 6-2; 13', 14', 23', 24') and causing the control unit (10) to compare the recorded number of channels with the number of channels of the new interface circuit (6-1', 6-2'; 13', 14', 23', 24').

15. The method according to one of claims 12 to 14, characterized in that before carrying out steps a) to c) the at least one switching matrix (8, 9) of at least one of the nodes (1, 2) is upgraded.

16. The method of claim 15, characterized in that the node (1, 2) has at least two switching matrices (8, 9) and that before exchanging one of these switching matrices it is determined as the switching matrix for the redundant specimens.

17. A method for upgrading a region of a telecommunication network, the region comprising a

plurality of nodes interconnected to form a ring by groups of bi-directional data lines, characterized in that the method according to one of claims 12 to 16 is carried out for each section formed by two nodes of the ring and a group of data lines connecting the nodes.

18. The method of claim 17, characterized in that before carrying out the steps of claim 17 a switchover is carried out from an operating mode in which the working specimens and the redundant specimens of the information units are transmitted in different directions on the ring into a mode in which the working and redundant specimens circulate in the same direction, and that after these steps, it is switched back again to the mode in which working and redundant specimens are transmitted in different directions.